

Appl. No. 09/375,418
Amdt. Dated January 9, 2004
Reply to Office Action of October 14, 2003

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An apparatus for multiple-channel passive dense wavelength division multiplexing (DWDM), the apparatus comprising:
 - a housing, wherein the housing is capable of being mounted in a front panel of a distribution frame in a switching office;
 - circuitry contained inside the housing, the circuitry capable of performing multiple-channel passive DWDM by receiving a plurality of inputs and providing one output, the circuitry further capable of providing a non-intrusive monitoring port;
 - a faceplate attached to the housing, the faceplate having a plurality of openings;
 - and
 - a plurality of connectors, wherein each connector resides in one of the plurality of openings in the faceplate, each connector having two ends, one end being connected to an input of the circuitry and another end being capable of accepting an input cable,
 - wherein each of the plurality of inputs is capable of accepting one optical signal of a defined wavelength, where one of the inputs is for maintenance purposes and is associated with a maintenance wavelength different than the defined wavelengths used in the event of a failure of one of the defined wavelengths.
2. (Original) The apparatus of claim 1 wherein the circuitry is capable of receiving 13 inputs.
3. (Original) The apparatus of claim 1, wherein the input cable is a fiber optic cable.
4. (Original) The apparatus of claim 3, wherein the input cable carries a signal of a defined standard wavelength.

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5. (Original) The apparatus of claim 3, wherein the input cable being capable of carrying an optical signal of a defined wavelength selected from the group of 1530.33 nanometer, 1533.47 nanometer, 1535.04 nanometer, 1538.19 nanometer, 1539.77 nanometer, 1541.35 nanometer, 1547.72 nanometer, 1549.32 nanometer, 1550.92 nanometer, 1552.52 nanometer, 1555.75 nanometer, 1557.36 nanometer, and 1558.98 nanometer.

6. (Canceled)

7. (Currently Amended) An apparatus for multiple-channel passive dense wavelength division de-multiplexing, the apparatus comprising:

a housing, wherein the housing is capable of being mounted in a front panel of a distribution frame in a switching office;

circuitry contained inside the housing, the circuitry capable of performing multiple-channel passive dense wavelength division de-multiplexing by receiving an input and providing a plurality of outputs, the circuitry further capable of providing a non-intrusive monitoring port;

a faceplate attached to the housing, the faceplate having a plurality of openings;
and

a plurality of connectors, wherein each connector resides in one of the plurality of openings in the faceplate, each connector having two ends, one end being connected to an output of the circuitry and other end being capable of accepting an output cable,

wherein each of the plurality of outputs is capable of carrying one optical signal of a defined wavelength, where one of the outputs is for maintenance purposes and is associated with a maintenance wavelength different than the defined wavelengths used in the event of a failure of one of the defined wavelengths.

8. (Original) The apparatus of claim 7 wherein the circuitry is capable of providing 13 outputs.

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9. (Original) The apparatus of claim 7, wherein the output cable is a fiber optic cable.

10. (Original) The apparatus of claim 9, wherein the output cable carries a signal of a defined standard wavelength.

11. (Original) The apparatus of claim 9, wherein the output cable being capable of carrying an optical signal of a defined wavelength selected from the group of 1530.33 nanometer, 1533.47 nanometer, 1535.04 nanometer, 1538.19 nanometer, 1539.77 nanometer, 1541.35 nanometer, 1547.72 nanometer, 1549.32 nanometer, 1550.92 nanometer, 1552.52 nanometer, 1555.75 nanometer, 1557.36 nanometer, and 1558.98 nanometer.

12. - 20. (Canceled)

21. (Original) A method for providing spare parts in a central office equipped with a plurality of laser transmitters of different frequencies with a spare laser transmitter of a single frequency, the method comprising:

providing a multi-channel passive dense wavelength division multiplexing (DWDM) multiplexer in a transmitting central office, wherein the multi-channel passive DWDM multiplexer comprises

a plurality of input ports, each input port being capable of accepting optical signals of a defined frequency, each input port being connected to a laser transmitter capable of generating optical signals of the same frequency,

a maintenance input port, the maintenance input port being capable of accepting an optical signal of a first frequency that is different from frequencies accepted by the plurality of input ports, and

an output port;

providing a multi-channel passive DWDM de-multiplexer in a receiving central office, wherein the multi-channel passive DWDM de-multiplexer comprises

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a plurality of output ports, each output port being capable of outputting optical signals of a defined frequency, each output port being connected to a laser receiver,

a maintenance output port, the maintenance output port being capable of outputting an optical signal of the first frequency that is different from frequencies output by the plurality of the output ports, and

an input port;

providing a spare laser transmitter for the transmitting central office, the spare laser transmitter being capable of generating an optical signal of the first frequency;

if one of the laser transmitters fails, replacing a failed laser transmitter with the spare laser transmitter;

connecting the spare laser transmitter to the maintenance input port of the multi-channel passive DWDM multiplexer;

connecting the maintenance output port of the multi-channel passive DWDM demultiplexer to the laser receiver assigned to the failed laser transmitter.